



INDIAN CHAMBER OF COMMERCE

India's North-East Diversifying Growth Opportunities



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Foreword

To be socially, and economically sustainable, India's growth story needs to be inclusive. However, the country's north east has been experiencing a comparatively slower pace of industrialisation and socio-economic growth. Though the region is blessed with abundant natural resources for industrial development and social development, they have not been utilised to their full potential.

The region has certain distinct advantages. It is strategically located with access to the traditional domestic market of eastern India, along with proximity to the major states in the east and adjacent countries such as Bangladesh and Myanmar. The region is also a vantage entry point for the South-East Asian markets. The resource-rich north east with its expanses of fertile farmland and a huge talent pool could turn into one of India's most prosperous regions. Yet, owing to its unique challenges, we believe that conventional market-based solutions may not work here, given the issues related to poor infrastructure and connectivity, unemployment and low economic development, law and order problems, etc.

The government and the private sector need to collaborate and take the lead in providing solutions to these problems. More reform needs to be initiated in a range of areas, such as investment in agriculture, hydel power, infrastructure as well as in creating new avenues of growth through the development of vertically integrated food processing chains, market-linked skill development and cross-border trade.

As multiple avenues for growth and development emerge, it is of paramount importance that the region, as a collective identity, embarks on a vibrant journey to realise the dreams of a better future. This vision can be realised only through the combined effort of all stakeholders. This report delineates these opportunities and attempts to provide new insights to the ongoing interventions to raise the north east of India to higher levels of inclusive economic development.

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Introduction

India's north east region (NER) is endowed with huge untapped natural resources and is acknowledged as the eastern gateway for the country's 'Look East Policy'.

The region is witnessing a series of insurgencies and is alienated from the economic resurgence that the rest of the country is experiencing. The World Bank describes conditions in the region as a low-level equilibrium of poverty, non-development, civil conflict and lack of faith in political leadership.

The states comprising the NER, while unique in most respects, have similar economic and geographical attributes that merits special policy interventions.

However, in spite of being endowed with vast natural resources in terms of forests, biological diversity, hydro-electricity, the region has remained largely underdeveloped. A key constraint to the growth has been poor infrastructure and limited connectivity, both within the region as well as with the rest of the country. The region, connected to the rest of India by a narrow stretch of land called the 'chicken's neck', needs infrastructure to support and ensure significant investments and developmental aids.

Exploitation of the large hydro potential in the NER could be used for exporting to the power deficit northern and western regions of the country. The spill-over benefits for the region will be the development of infrastructure such as roads, communications, and electricity supply to remote hilly areas, resulting in better quality of life.

The improvement in power generation will in turn help in establishing lead industries (e.g., cement) by annulling the effects of high transportation costs. This in turn will help in skilling workers in modern industry oriented production activities and address the gap in the ready availability of an industrial workforce in the region.

Opening up and augmenting trade with the neighbouring countries such as Bangladesh, Myanmar and through Myanmar to South East Asia will also help in realising the full potential of the region.

Considering that development of any kind, particularly infrastructure, in this part of India will be associated with socio-political issues such as land acquisition and displacement of people, the policy and aids of the central and state governments should address these issues to accelerate the completion of developmental projects.

Recently, the government has taken several steps to overcome these infrastructural bottlenecks to induce sustainable development in the region. The strong focus on roads, airports and hydropower developments are some of the key steps in this direction.

Based on this framework, the report tries to give a low-down on the development of specific actions and policy improvements towards corrective measures as follows:

- To enhance the region's capacity through appropriate policy framework with an eye on the ASEAN markets
- To highlight the need for infrastructure and capacity building measures and focus on policies to create enabling environments for the export market
- To identify potential areas for future investment and product development based on regional comparative advantages

Demographics and Social Infrastructure



The region comprises eight states-Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Assam. Occupying 8% of India's geographical spread, the states are home to only 4% of the country's population, while Assam accounts for 68% of the population.

The region stands way below in comparison with the rest of India in socio-economic indicators. As per the 2001 census, the annual per capita income of NER is 6,625 INR against the rest of India average of 10,254 INR. Nearly 34.28% of the population is below poverty line as compared to the national average of 26.1%. However, the NER is a highly literate region. Except for Arunachal Pradesh, all the other states have literacy rates about or above national average of 64.8% which provides a good pool of educated human resources in the region.

All the eight states have different developmental prospects and resources to support their efforts in contributing to the regional as well as national economy. A critical appraisal of the key economic indicators along with a detailed sketch of the individual strengths of the seven states is necessary to achieve a holistic framework to target growth in the region.

Agriculture



The region is endowed with a varied topography and agro-climatic conditions which offer vast potential for agriculture, horticulture and forestry. However, the region is lagging in agricultural development contrary to the national ethos. Reasons include a lack of appropriate strategies for the development of natural resources, inadequate infrastructure facilities and low adoption of improved technology.

The region, which is heavily dependent on the agriculture sector, needs a green revolution to eradicate poverty and boost its economy. Such a green revolution must be adequately backed by financial institutions, marketing functionaries and R&D.

Current scenario

Agriculture provides livelihood to 70% of the region's population. In Mizoram, around 51% of the population lives in rural areas and is dependent on agriculture. The figure in Sikkim is high at 89%. However, the pattern of agricultural growth has remained uneven across regions. The states continue to be net importers of food grains even for their own consumption.

Share of NE states in production of major crops (2008-09)

NE state	Rice		Wheat		Cereals		Pulses		Food grains		Oil seeds	
	Prod	Share(%)	Prod	Share(%)	Prod	Share(%)	Prod	Share(%)	Prod	Share(%)	Prod	Share(%)
Arunachal Pradesh	163.9	0.17	5.2	0.01	77.7	0.19	9.0	0.06	255.8	0.11	30.5	0.11
Assam	4008.5	4.04	54.6	0.07	15.4	0.04	64.5	0.44	4143.0	1.77	137.9	0.50
Manipur	397.0	0.40	-	-	11.5	0.03	6.5	0.04	415.0	0.18	0.7	0.00
Meghalaya	203.9	0.21	0.7	0.00	27.8	0.07	3.9	0.03	236.3	0.10	7.1	0.03
Mizoram	46.0	0.05	-	-	9.3	0.02	3.6	0.02	58.9	0.03	2.5	0.01
Nagaland	345.1	0.35	2.1	0.00	127.3	0.32	39.7	0.27	514.2	0.22	71.5	0.26
Sikkim	21.7	0.02	7.8	0.01	66.2	0.17	11.8	0.08	107.5	0.05	7.4	0.03
Tripura	627.1	0.63	1.2	0.00	2.0	0.00	4.4	0.03	634.7	0.27	2.5	0.01
NE Region	5813.2	5.9	71.6	0.1	337.2	0.8	143.4	1.0	6365.4	2.7	260.1	0.9
All India	99182.4	100	80679.4	100	40037.9	100	14566.7	100	234466.4	100	27719.0	100

Note: Production in thousand tonnes

Share % share in all India production

Source : Agricultural Statistics at a Glance, Ministry of Agriculture, Government of India.

Forest cover 2011

States	Geographical area	Forest cover	% Forest cover
Arunachal	83743	67410	80.5%
Assam	78438	27673	35.3%
Manipur	22327	17090	76.5%
Meghalaya	22429	17275	77.0%
Mizoram	21081	19117	90.7%
Nagaland	16579	13318	80.3%
Sikkim	7096	3359	47.3%
Tripura	10486	7977	76.1%
NER	262179	173219	66.1%
All India	3287263	692027	21.1%

Area in Sq Km

Source: Forest Survey of India

This is due to the limited land available for agriculture. The region has a forest cover of more than 66.1% (ranging from 35.3% in Assam to 90.7% in Mizoram) against the national average of 21.1%. Even though, it accounts for about 8% of the total geographical area of the country, it has only 3.4% of land for agricultural purposes (CMIE, 2007). It contributes only 2.8% to the total agricultural production, underscoring the low productivity of the region (RBI, 2005).

Opportunities for investment in agriculture and food processing



Rubber and bamboo are among the important agricultural produces which can attract a lot of investment opportunities. Tripura is the chief production hub and has been declared as the 'second rubber capital of India' right after Kerala by the Indian Rubber Board. The state has the potential to produce 10,000 hectares of rubber (the available plantation area is 35,760 hectares). Other rubber producing states in the region are Mizoram and Assam. Coupled with the fact that globally India ranks third in the production and fourth in the consumption of rubber creates a huge market for investors. The NE states also produce a substantial percentage of bamboo, accounting for 65% of India's production value and 20% of the global production value. Mizoram alone contributes to around 40% of the country's bamboo production. While India's bamboo market is expected to grow to 5.5 billion USD by 2015, the UN's Industrial Development Organisation estimates the NE's bamboo production to grow up to 1.25 billion USD in the same period.

The region's comparative advantages in producing fruits, vegetables and other horticulture products can be tapped by setting up small-scale processing units for the local market which will also boost rural employment. This set-up is economically viable as well as doable as a small processing unit requires little capital. The region produces a large amount of spices such as chillies, ginger, mustard seeds, fruits and vegetables which can be processed and marketed locally.

Arunachal Pradesh has taken up the cultivation of horticulture produce especially of sub-tropical fruits on a large scale with assistance from the government. In Mizoram, which accounts for 12% of the total fruits produced in the north east, a special purpose vehicle (SPV) has been formed with private sector companies to set up a plant for the processing of turmeric, ginger, chilly, fruits and other horticulture products. In Manipur, organic farming is the most sought-after practice in the hill areas. The state government has given special impetus to farming for pineapple, passion fruit, mushroom, etc.

on a massive scale. With proper processing, many of the agri-horticultural crops of the state look promising for export. Another focus area for the agro based industry is the processing for extracts of spices, medicinal and herbal plants. The state government has established a food park at Nilakuthi with a project cost of 6.6 million USD. This park will provide common facilities like cold storage, warehouse, quality control laboratories, packaging, tool room, power and water supply, sewerage treatment, etc. The Nagaland Food Private Limited (NFPL) established in the Dimapur Industrial Estate specializes in bamboo shoot processing, pineapple, passion fruit and orange juice processing. The food and meat processing sector also provides immense potential for investment in the state. The Nagaland Industrial Development Corporation has received approval for developing an agro and food processing SEZ in Dimapur.

There is also scope for dairy processing and poultry, fishery processing in the region. There is huge demand for dried fish in the region, processing of which is not capital intensive. The National Dairy Development Board (NDDDB), which has extensive experience in mobilising producers in milk, vegetables as well as other areas, could play a key enabling role in this process. Increase in milk production will encourage the milk, butter and cheese processing industry in the region.

Private entrepreneurs need to be encouraged to set up storage, distribution and marketing infrastructure such as a cold storage chain along major arterial highways. This will help exploit the horticulture potential of the region and bring perishables speedily to marketing hubs. For cold chain operations, a public-private partnership (PPP) or lease could also be explored. Similar initiatives can already be seen in Meghalaya and Mizoram where flowers are being distributed outside the region by a private distributor, Zopar, which also supplies seed varieties to farmers.

Constraints

In spite of the efforts of the MOFPI and regional development organizations such as the NeDFI, challenges remain in realizing the full potential of the region's agricultural resources. Fragmented land holdings by small and marginal farmers which dominate the landholding pattern in the north east is uneconomical. The region has low proportion of irrigated area and investment in building irrigation capacity has been insufficient and ineffective. The use of agricultural inputs in the north east is also low compared to the rest of the country. Fertilisers used per hectare during 2010-11 were negligible in the region, especially in Nagaland (2.35 kg), Arunachal Pradesh (3.01 kg); and ranged between 13 kg in Meghalaya and 63 kg in Assam compared to the national average of 135.27 kg per hectare. Also the share of agriculture in total electricity used is just under 1% in all the north-eastern states, except Tripura (7.41%), as against the national average of 20.43%.

Physical infrastructure



Roads and railways

Road is an important mode of travel in the hilly areas as other mode of travel is either too expensive or difficult. The road infrastructure is relatively deficient in the NE although the region's road density per capita is significantly higher as compared to the rest of the country. Given the low density of population and the hilly terrain of the region this is an expected outcome. The road length per unit area is higher only in Nagaland, Assam, and Tripura.

Road density, 2008

States	Road density per 1000 sq Km	Road density per 1000 population
Arunachal	196.96	13.77
Assam	2936.51	7.83
Manipur	739.11	6.98
Meghalaya	438.67	3.89
Mizoram	292.11	6.35
Nagaland	1345.32	10.27
Sikkim	263.95	3.17
Tripura	3026.23	9.09
India	965.73	2.77

Source: 1. Material supplied by TRW, M/o Road Transport & Highways

2. Annual Report, published by M/o Road Transport & Highways

* Excludes roads constructed under JRY and PMGSY

Road lengths (km)

India: 2011-12								
States	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Sikkim	Tripura
National highways	1,992	2,836	959	810	927	494	62	400
State highways	--	3,134	668	1,134	259**	404**	186	689
Major district roads	12,169	4,413	964	1,219	--	2,387	1,720	90
Rural roads*	5,455	1,88,850	6,305	1,569	1,972	22,095	2,326	16,415
Urban roads*	33	6,664	210	110	325	98	162	280
Project roads*	1,088	8,493	--	940	35	269	5	1,346

Sources: Ministry of Road Transport & Highways, CMIE States of India

**2007-08 data

* 2010-11 data

To address this The Ministry of Road Transport and Highways (Morth) has been paying special attention to the development of national highways in the region. The ministry has earmarked 10% of the total allocation for the NE region. The total length of NHs in the region is 8,480 km and these are being developed and maintained by three agencies-the state Public Works Departments, Border Road Organization (BRO) and National Highway authority of India (NHAI). Of the total length of 8,480 km, about 2,118 km is with the BRO and 5,409 km is with the respective state PWDs. The remaining length of 953 km is with the NHAI. There has also been a special thrust in building the road infrastructure. Sufficient funds have also been allocated in building the road infrastructure in the NE states. The states have 2,473 km of NHs, 5,711 km of state highways, and 15,154 km of major district roads. The states have funds (from various agencies such as Asian Development Bank, etc.) to upgrade the worn out state roads.

In most NE states, village and district roads are dominant. These roads are particularly important for facilitating intra-state movement of people and freight.

A snapshot of the road lengths in the various states of the region is as follows:

The major road programmes that are being undertaken in the region are as follows:

1. National Highway Development Programme (NHDP)-II proposes to link the east-west corridor beginning at Porbandar, Gujarat to the NE through a 678 km four-lane highway connecting Silchar to Srirampur via Lumding-Daboka-Nagaon-Guwahati in Assam. This has been entrusted to the NHAI under the NHDP phase-II.
2. NHDP-III proposes to widen 1,051 km stretches of various NHs to improve connectivity of state capital towns.

National Highway Development Programme III

NH No.	State	Stretch	Length
36/39	Assam/Nagaland	Daboka-Dimapur	124
39	Naaland/Manipur	Kohima-Imphal	140
44	Meghalaya/Assam	Shillong-Churaibari	252
54	Assam & Mizoram	Silchar-Aizwal	190

3. The Arunachal package envisages improving the connectivity to the Arunachal dramatically. The package incorporates the following:
 - Construction of public roads to link the hydel power project
 - Four-lane connectivity to Itanagar
 - Two-lane connectivity of district headquarters
 - Trans-Arunachal highway
4. Special Accelerated Road Development Programme for North East (SARDP-NE) Phases 'A' and 'B' will cover construction and improvement of 8,737 km of road length. Major objectives of this programme includes providing a two-lane NH connectivity to all state capitals with East-west corridor, providing connectivity to all district headquarter of NER by at least a two-lane road and providing inter-connectivity to all the state capitals by at least a two-lane NH.

Besides, there is a proposal to connect India and Myanmar through a single road running on either side of the borders. Earlier, the stretch of road in Myanmar was to start from Kaletwa, which will now start from Paletwa. The DPR for this new stretch is being prepared. In India, the road is to start from Lawngtlai in Mizoram. The technical specification of the road has been revised and consequently revised cost estimates are being worked out.

Railways are the best mode of mass transportation in the country. However, in the hilly terrains of the NER it is difficult and expensive to setup rail networks. This accounts for the absence or nominal presence of railway lines in hilly states like Arunachal Pradesh, Manipur, Meghalaya and Mizoram.

Even in Nagaland and Tripura the railway route has been setup in the plain areas of the region.

State-wise density of railways routes in north eastern region of India

2009			
States/UTs	Route kilometres	Area square kilometres	Route kilometres per 1000 sq kms. of Area
Arunachal Pradesh	1.26	83743	0.02
Assam	2283.71	78438	29.11
Manipur	1.35	22327	0.06
Meghalaya	0	22429	0
Mizoram	1.5	21081	0.07
Nagaland	12.85	16579	0.78
Sikkim	0	7096	0
Tripura	151.4	10492	14.43
NER	2452.07	262185	9.35
India	64014.88	3287869	19.47

Source : Rajya Sabha Unstarred Question No. 1467, dated on 06.08.2010.

In the Rail Budget 2012-13, a survey for railway electrification project has been sanctioned for Assam. It also envisaged bringing the northern banks of the Brahmaputra river under rail connectivity. Tripura is another state in the NER where development of railway infrastructure is picking up well. From 2000 to 2010, the length of railway route in Tripura has increased from 41 km to 152 km. There are three major railway stations located in Dharmanagar, Agartala and Kumarghat. The government has proposed a 14 km metre gauge railway line between Agartala (Tripura) and Akhaura (Bangladesh). In addition, there is a proposed railway-link to be developed between Agartala and Sabroom, covering 110 km and expected to be complete by 2014. In Arunachal, the nearest railway station is location at Harmoti in Assam 33 km from Itanagar. The major functional rail head linking Manipur with the rest of India is at Dimapur (Nagaland), 215 km away from Imphal. However, a railway line from Jiribam (on the Manipur-Assam border) is under construction as a national priority project. It is expected to connect Imphal with the rest of India by 2016. New railway lines on Azra-Byrnihat, Dudnoi-Mehendipather and Byrnihat-Shillong routes in Meghalaya are under construction. The construction of the extension of a vital broad gauge rail link between Bairabi rail terminus on the Mizoram-Assam border and Sairang, a village 20 km west of Aizawl, is in progress. In Sikkim rail connectivity is being created between Rangpoo and Siliguri in West Bengal. A railway track is also to be laid for connecting Agartala with Akhaura in Bangladesh.

Airways and waterways

Inland water transport can be a viable, cost-effective alternative in the plain areas of NER given the high cost of expanding other mode of transportation. It will also create employment opportunities, promote tourism and open up inter-country routes for trade and commerce. However, the following needs to be done:

- There is a need to improve facilities for night navigation and mechanical handling.
- Cargo vessels and terminals should be increased to meet the rising demands.
- Emphasis should be on PPPs for the development of fairways and infrastructure in IWT.

Major river routes in the NER are the Brahmaputra and the Barak in Assam which has a combined navigable length of around 1,000 km. In all the NER has about 3,839* km of navigable river routes. There are seven operational port locations in the state for import and export to the Kolkata and Haldia ports. There is an inland container depot (ICD) at Amingaon, 10 km from Guwahati, operated by the Container Corporation of India Ltd (CONCOR). Waterway connectivity between Mizoram and the port of Akyab Sittwe is under construction and this could lead to enhanced trade opportunities within the country.

The NE region has one international airport in Guwahati, Assam-the Lokpriya Gopinath Bordoloi International (LGBI) Airport. The Airport Authority of India (AAI) plans to make it one of the major international airports, connecting Southeast Asia with India. Besides, Assam has six domestic airports at Guwahati, Tezpur, Jorhat, Dibrugarh, Silchar and North Lakhimpur. During 2011-12, the Guwahati airport received 2.2 million passengers. Mizoram has one operational airport at Lengpui where daily air connectivity is available through multiple air carriers. In 2009-10, Lengpui airport handled 1,790 aircrafts with 120,000 passengers. The Shillong airport (Umroi Airport) is fully-operational, while the Baljek Airport is under construction and upgradation. In Sikkim, the airport construction is underway in Pakyong. A greenfield airport has been proposed near Itanagar, for which environmental clearance has been received in April 2010. The Ministry of Civil Aviation has also planned to operationalise airports at Daporijo and Tezu in Arunachal. Nagaland has one operational airport at Dimapur. A second airport is being planned for Kohima.

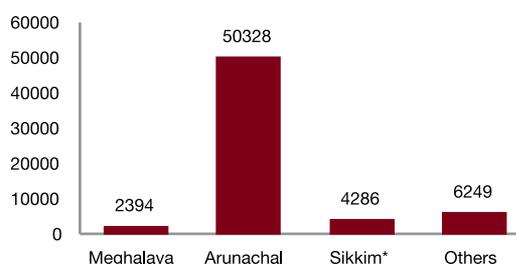
Under the 'Look-East Policy', improved links with international neighbours is a priority. Bangladesh, Bhutan, Myanmar and TAR should be connected to Guwahati in addition to Bangkok. Another international airport for the southern part of NER in Agartala can be prioritized.

Power

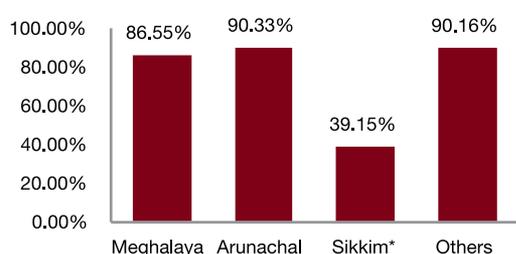


The region is endowed with perennial rivers and water bodies, therefore, it has a huge hydroelectricity potential. This potential, if tapped well, can be used to export power to other regions of the country. The spill-over benefits will be the development of infrastructure such as roads, communications, and electricity supply to remote hilly areas, resulting in better quality of life. States such as Arunachal Pradesh, Sikkim and Meghalaya have huge potential in hydropower generation.

Identified potential(MW)



Capacity yet to be developed



Many policies such as the '50,000MW hydro initiative', the Hydro Policy 2008 have been formulated by the central government to promote investment in hydropower in the region. Under the Mega Power Policy, the qualifying threshold capacity for setting up hydropower plants in the region and for availing the special benefits thereof is 350 MW, whereas for the rest of the country, it is 500 MW.

Under the Hydro Policy 2008 the project developers in the central and state sector can explore the possibility of foreign assistance to finance their projects. This assistance is already being utilised by NEEPCO for Pare Hydro Electric Project and MeSEB for Renovation and Modernisation of Umiam II HEP.

As per the 'North Eastern Industrial and Investment Promotion Policy (NEIIPP), 2007' by Ministry of Commerce and Industry, the whole of NER has been declared a SEZ and many subsidies, tax exemptions and waivers are offered on cost of infrastructure, transport, power, etc. The central government is also promoting private sector in the region to boost investment in the power sector. About 14,000 MW has already been allotted to private players in NER for development as part of the '50,000 MW hydro initiative'.

Skill development



According to the study on development and employment generation potential of the north-eastern states, between 2011 and 2021, the region will have only 2.6 million jobs. And half of this demand will be in Assam alone, which is about 1,234,357 jobs. As opposed to the low demand, there will also be a supply of 17 million people in 2011-2022, an excess of 14 million job seekers.

The region will generate 2.6 million jobs, but the manpower supply will be 16.8 million persons. So there is a need for a twin approach for developing skills for both local employment and for those who seek to migrate.

For this, the North Eastern Council (NEC) and the Ministry of Development of North Eastern Region (DoNER) have prepared the 'Vision 2020'. It envisages the following targets by 2020:

- Overall GSDP growth at a CAGR of 11.64% between 2007-09 and 2019-20
- Overall per capita income growth of 12.95% between 2007-09 and 2019-20

To support this vision, the Ministry of Development of North Eastern Region has formulated a strategic plan (2010-16). Following are the highlights of the plan:

- Building capacities and competencies in critical sectors in the region

- Preparing a plan of action for building capacities and competencies in critical sectors
- Identifying institutes and organisations for imparting training and building capacities in the region
- Setting up of training institutes in the region in important fields through line Ministries, NEC or states
- Augmenting the capacity of the existing training institutes in the north eastern states
- Using IT as a tool to upgrade skills

To realise the economic potential the region holds, it is imperative to utilise the demographic advantages and parameters that will lead to market linked skill development. The key thrust areas that evolve from an analysis of these parameters are as follows:

- The forest plays a major part in the economies of these states. Sadly, the NER forest resources are facing degradation and deforestation. Large investment outlays for capacity building of knowledge and skills centres aimed at preserving the ecology are required. The states are unable to address such resource needs. Planned outlays in training and awareness for imparting correct skills-set to the community for the states to preserve the biomass is required.
- Institutions of higher education focussing on environment sciences (viz. forest sciences, social forestry, botany, environment and ecology sciences, etc.) need to come up for building local community awareness to ensure conservation of NER's forest resources.
- The agricultural growth has been uneven across NER, which comprises 8% of India's total geographical area but produces only 1.5% of the nation's foodgrains. The NER has not been able to benefit from the 'Green Revolution' as much as the rest of the country. Agriculture, horticulture, animal husbandry and fisheries are important livelihoods but have low levels of productivity. Poor connectivity has compounded the constraints of logistics, preservation and distribution of the perishable produce. This makes farm prices unremunerative, deters the growth of food processing industries, cultivation of vegetables and commercialisation of fruits and spices, even with investments in marketing and storage facilities.
 - Agricultural universities need to encourage research in improved cropping and productivity that will address food stockpiling needs for meeting local demand. Equally important are the training institutes in food processing.
 - Given the huge reservoirs of oil and gas hydrocarbons, there is an opportunity to train the local population in trades relating to exploration and production of oil and gas.

Matrix mapping resource occurrences, economic potential and higher and vocational education opportunities in the region

Natural Resources	Human Capital Resources	Economic Potential	Industrial Potential	Vocational Education Possibilities	Higher Education Possibilities
Petroleum and Natural Gas	Largest pool of technical resources	Oil & Gas exploration	Petroleum exploration and downstream refining and cracking for fuel, lubricants and industrial polymers	ITI, VE and TE on oil rigs - drilling and maintenance, plant operation and maintenance	Chemical engineering, polymer sciences, environmental engineering and sciences, geology and petrology
Need to improve connectivity	Sparsely populated areas and low urbanisation allows for quickly ramping up infrastructure; unsatiated demand for telecom services	Growth and development of infrastructure and telecom connectivity	Large scale infrastructure investments and opportunity for several telecom operators	Vocational and Technical education for semi skilled and skilled construction workers	All streams of engineering education, in management, legal education besides material and earth sciences, hydrology and physical sciences
Potential hydel power from riverine resources	Sparsely populated areas allow for new projects to come up without major displacement and related Relief & Rehabilitation Costs	Bridge the national power demand by supplying clean energy	Setting up Hydro Power Generation units across the NER creating employment and critical infrastructure base of national importance	Vocational and Technical education for semi skilled and skilled construction labour supply and for plant operation and maintenance	All streams of engineering education, in management, legal education besides material and earth sciences, environment, hydrology and physical sciences
Abundant and naturally growing tea bushes	Diligent plantation labour with knowledge of harvesting and post harvest processes	Production of world class tea, employment potential and foreign exchange earning for Indian economy	Best of class, productive and well managed tea industry satisfying all stakeholders	ITI, VE and TE on plantation maintenance, upkeep, supervision and tea production	Agricultural University, bio technology, plantation regeneration / management, Finance & Accounting, Tea Research
Farm and livestock	Animal husbandry knowledge and processes	Contract farming and animal husbandry	Food processing and distribution, Retail	ITI, veterinary colleges, Private Management schools, VE schools	Biological sciences, bio technology, Management, Law
Sub optimally utilised Agricultural resource base	Adherence to conservative farming techniques	Raise agriculture, horticulture, animal husbandry and fishery to higher levels of productivity for adequate food buffer stocks	Development of food processing industries, commercialised cultivation of vegetables, fruits, spices, investment opportunities in marketing and storage facilities	ITI, Panchyati Raj system to popularise improved cultivation techniques among local community	Agricultural Universities for improved cropping practices, bio technology research, molecular biology, veterinary medicine
Flora and fauna - terrestrial and mountain	Tribal and rural artistic / aesthetic craftsmanship skills	Eco-tourism, wild life tourism, Handlooms and handicrafts	Cottage industries, micro finance, self help groups	Tribal arts, craft schools, ITI, VE schools, Management schools	Management sciences, Social sciences - Anthropology, Sociology
		Reap the rich plant bio diversity	Production facilities for drugs and pharmaceuticals from medicinal plants	Training for plant collection, preservation and harvesting techniques	Botany, research on pharmacology and mapping medicinal plant bio diversity for determining IPR by geographical identification
		Environment protection	Carbon trading, green technology		Environmental engineering, sciences and biological sciences
	Local communities dependent on tourism and fluent in English	Religious and wild life tourism, hill resorts	Hospitality	Hotel Management schools, VE schools - plumbing, electricians, etc	Management Sciences
	Ethnicity, multicultural society, folklore and arts, fluent in English	Art, culture content and intangible capital	Entertainment & Media	VE schools - TV anchoring, studio technicians, Acting and modeling schools	Centres of Excellence on culture, arts and Telecommunication engineering
Archaeological sites, historical places of worship		Tourism, including religious tourism	Hospitality, Real Estates	Hotel Management schools, VE schools - plumbing, electricians, draftsmen, etc	
	Consumerist society	Large domestic markets	Deep service sectors - telecom, government revenue services, FMCG and white goods trading, legal and medical services	Para accounting, IT finishing schools, VE schools, fashion design, para medical schools	Telecom engineering, Management, Public administration, Law and Medical colleges
Favourable climate and physical infrastructure	Educated and English speaking work force	Supply of educated human capital with good communication skills	IT and ITeS, Knowledge based industries, Real Estate	IT finishing schools, Language schools, VE schools, Artisans, plumbing, electricians, estate management	Engineering, Computer science and applications, Architects, Management sciences
Frequent natural disasters	Challenges of disaster relief for large rural segment, depressed classes of society	Disaster management measures, Relief & Rehabilitation	Civil engineering structures, afforestation		Disaster Management, Centre of Excellence on Climatic and Earth Sciences
Large tracts of virgin forest resources	Local communities dependent on forests	Arrest degradation and deforestation; developing alternatives to cultivation, preserve bio-diversity	Public investment outlays on environmental engineering, creation of knowledge and skills centre for environmental protection		Higher education Institutions on environment sciences, forest sciences, social forestry, botany, environmental engineering

Source: Re-defining Higher Education in the East, a PwC report

- The entire region has tremendous potential for generating hydro-electric power and there will always be demand for engineers and technicians in generation, transmission and distribution of electricity.
- Prospects for this sector's development are common place in almost the entire NER. Therefore, there is a need to build up skills-set and human capital in the areas of vocational and technical training, sericulture, use of modern tools and implements to help provide a scientific basis to further enrich traditional skills that help produce handloom and handicrafts having unique geographical origin.
- The rich cultural canvas, the flora and fauna of the region calls for a measured policy intervention that should aim at preserving and economically exploiting the cultural heritage. A growth in tourism will be followed by growth in the hospitality sector. This region has a large English speaking population that finds employment in the hospitality industry across India and outside. There are thus opportunities for leveraging the local talent by setting up training institutes in hospitality and hotel management.
- Good English language skills also can find employment in call centres and the government can create the environment by improving connectivity and adding courses in its ITIs for this trade.

Policymakers are finally creating a framework and inviting private investors in higher education, filling a glaring shortage that has in the past seen students in the region migrating to the rest of the country.

The sector has till date received investments to the tune of 300 crore INR, and projects worth 200 crore INR are in the pipeline. At least three to four private universities are looking to soon start operations.

Some of the initiatives are in the public private partnership mode. Meghalaya, for instance, has inked a memorandum of understanding with the International Finance Corporation for starting the Shillong Medical College.

The Assam government, in partnership with the Tata Group, while Oil India, is starting the Indian Institute of Information Technology and Advanced Sciences (IIITAS). Emphasis will be on industry-interface research and development relevant to Assam, besides skill development, helping the youth of the state to be employable here and elsewhere. While the centre will hold a 57.5% stake in the project, the state government will hold 35%, and the Tata Group and OIL will hold the remaining stake.

Incentives to invest

As per the 'North Eastern Industrial and Investment Promotion Policy (NEIIPP)-2007' by the Ministry of Commerce and Industry, the region has been declared as special economic zone (SEZ).

The central government has implemented various schemes to attract investors. These are as follows:

- Subsidy at 90% of the transport cost of raw materials brought from outside the region as well as the finished goods sent from the region to other parts of the country. The transport cost between Siliguri (the entry point to the north east) and the factory site only is considered for subsidy calculations. In addition, subsidy is also available at 90% of transport cost on movement of raw materials and at 50% of transport cost on movement of finished goods from one state to another within the region.
- Income tax exemption for five years for the new industrial units set up in the region.
- Growth centres and IIDCs to be converted into total tax free zones for the next ten years. Similar benefits will also be extended to new industrial units or their substantial expansion in other growth centres or IIDCs of industrial estates, parks, export promotion zones set up by the states. Similar benefits will also be provided to units located outside the specified locations, if they belong to the specified industries listed in Annexure A of the Indian government circular.
- Capital investment subsidy (CIS) at 15% of investment in plant and machinery, subject to a maximum ceiling of 30 lakh INR will be given. Eligibility conditions will be same as in case of tax benefits.
- Interest subsidy of 3% on working capital loans will be provided for a period of 10 years. Eligibility conditions will be same as in case of tax benefit.
- A comprehensive insurance scheme for industrial units to be designed, in consultation with GIC and 100% premium to be borne by the Indian government for 10 years.

Border trade



With the emergence of globalisation, economic integration among nations has become a necessity. Cross-border trade is the most important medium of the current wave of globalisation. In this process, knowingly or unknowingly the north east economy has emerged in to a new dimension of cross-border trade (informal trade) with neighbouring nations and that increases social welfare of the poor masses of the region. Under the “Look East” policy, India seeks economic cooperation with ASEAN and other neighbouring countries through the gateway of the region.

The North East is located at a crossroads between three major economies – East Asia, South Asia and Southeast Asia. This geopolitical advantage, has however, not really translated into the region’s economic development. Despite the high growth in India’s trade ties with Southeast Asia and China in the recent past, the Northeast’s role has been marginal in terms of its contribution to trade and as a trade route. The Northeast has not been able to integrate and benefit from the various regional and sub-regional initiatives that neighbouring countries have created. Out of India’s export volume of about \$254.4 billion, the Northeast’s share is only about \$0.01 billion. The Planning Commission’s report on North east’s border trade with the neighbouring countries’ shows that the region mainly exports primary products like boulder stone, limestone, fruits, tea, coal etc. Nearly 94 per cent of exports from the region consist of tea and coal. On the other hand, manufactured goods have a negligible presence in the export basket. Even the manufactured goods produced in areas other than North East are not very significant in official border trade

In order to benefit from the cross border trade initiatives industries in the region need to develop goods to be exported to the neighbouring countries. Processing industries have to be set up to manufacture quality goods, which can be offered in international markets at acceptable prices. Infrastructure and connectivity improvements in terms of strategic roads to border areas as well as Integrated Check Posts and border trade points need to be developed. This will also lead to reduced informal trade between NE and the neighbouring regions.

Trade with Bangladesh

The World Bank statistics on India’s trade status with Bangladesh points out the following interesting facts:

- Over 15% of Bangladeshi imports come from India.
- Bangladesh has a large trade deficit with India; this is offset by surpluses with other countries.
- Bangladeshi exports to India receive tariff concessions (under SAFTA).
- They account for less than 1% of total India’s imports.
- Illegal trade between the two countries amounts to 3/4 of regular trade.

Against this backdrop, popular argument in support of strengthening economic ties with Bangladesh has been that closer ties will be mutually beneficial. Four north-eastern states - Tripura, Meghalaya, Mizoram and Assam - share a 1,880-km border with Bangladesh, and a large number of people reside just along the border. Bangladesh needs the north east market to sell its products, while the latter needs investments. The NE states can capitalise on this and bargain for investments in lieu of opening its markets to Bangladesh. The country has been maintaining around 6% growth consecutively for the past couple of years. It is likely to emerge as a middle income country by 2020. Again, geographical proximity also makes the region lucrative for Bangladesh to invest in areas such as hydel power, an area in which the country has already expressed its interest since it will have to invest very less in transportation.

Another argument is that importing goods from Bangladesh will be cheaper than products which are brought in to the region from other parts of the country as the cost of transportation will be minimal. This will implicitly impact the lives of the people of the region as the cost of living will come down subsequently.

Bangladesh and India have agreed to set up a number of ‘Border Haats’ (border markets) along the boundaries, which, if opened, are expected to witness bilateral trade worth \$20 million every year.

India and Bangladesh set up the first such ‘Border Haat’ at Kalaichar in West Garo Hills district of Meghalaya last year. The border haats or bazaars are to be set up within five km on either side of the international border.

The border haats would be allowed to sell local agricultural and horticultural products, small agriculture and household goods, e.g. spices, minor forest products (excluding timber), fresh and dry fish, dairy and poultry products, cottage industry items, wooden furniture, handloom and handicraft items, etc. No local tax would be imposed on the trading, and both Indian as well as Bangladeshi currencies will be accepted.

Trade with Myanmar

The Indian government has long identified stronger ties with neighbouring countries, and especially Myanmar has been identified as the key to break the region's geo-political isolation. To that end, in its 2008 blueprint for socio-economic development in the region, promoting trade and investing in infrastructure on both sides of the India-Myanmar border was a top priority for the government.

Recently, several agreements have been signed between both the countries to meet these goals. During Prime Minister Manmohan Singh's visit to Myanmar (May 2012), memoranda of understanding (MoUs) were signed not only to enhance border development, but also to increase connectivity between the two countries and through Myanmar with Thailand and the Indo-Chinese states. Also, building infrastructure is on the top of the list. India has agreed to upgrade an extensive network of roads and bridges in Myanmar that will effectively connect the region (and the rest of India) to Thailand as soon as 2016. Both sides are also exploring the possibility of setting up train routes through both the countries.

The efficacy of various projects related to the trilateral highway as a component of the Asian highway cannot be overlooked. It aims at connecting India's north east with Thailand via Myanmar. There has been an agreement between India and Myanmar on the construction and upgradation of the Kalewa-Yargyi stretch of the trilateral highway during recent meetings. In its larger and more ambitious frame, the project is an example of triangular road diplomacy between India, Myanmar and Thailand, with a vision of inter-linking the Indian Ocean with the South China Sea. It is a component of the Asian highway, which is scheduled for completion by 2016. Proposed and implemented by the United Nations Economic and Social Commission for Asia and Pacific (UNESCAP), the Asian Highway project includes the highway 1 and 2 that would pass through the region, connecting India with its eastern neighbours.

The highway needs to be interlinked with other critical projects that are envisaged to be completed as part of the 'Look East' policy such as the Kaladan Multimodal Transit Project and Trans-Asian Railways. There is also a concern regarding illegal migration, which will also increase. Thus, there appears to be some incompatibility between the various development initiatives and approaches adopted in the region and the needs of the local people. Many of the movements, agitations and local protests being witnessed in the region are directly linked to such incompatible approaches.

Nevertheless, with better connectivity and implementation of various development projects, the Asian Highway will enable the region to become a business hub of South Asia. Economic linkages already exist by virtue of the prevailing legal and illegal trade between India and Myanmar through Moreh, a business border town in Manipur, and Tamu in Myanmar. Concrete economic benefits are expected to come up in the region with establishment of border haats. In addition, internal trade routes have the potential to enhance accessibility to sub-regional markets that connect Bangladesh, Myanmar and Bhutan.

Myanmar is India's gateway to ASEAN as it is the only country of this grouping which has a land and maritime boundary with India. With India becoming a summit level partner of ASEAN and a member of the East Asia Summit, improved relations with Myanmar will be beneficial in many respects.

Conclusion

Institutional change supporting economic enhancement and growth at a social level requires economic incentives, supported by political will. With India moving into a new era of economic liberation, the region should not be left out. The framework for development of the region can be broadly based upon four vital components. The first component of this development plan should be social empowerment. It needs to empower rural communities, create sustainable institutions so that they manage common activities around microfinance, livelihoods and natural resource management. The second component needs to be economic empowerment. The objective of this component should ideally be to develop the capacity of rural communities to plan and manage funds for various economic initiatives and common activities for the public. The third component will be partnership development. The objective of this component should be to partner with various service providers, resource institutions and public and private sector organisations to bring resources such as finance, technology, and marketing into the project so that the community groups are able to improve their livelihoods. The fourth and final component will be project management. This will facilitate various governance, implementation, co-ordination, learning and quality enhancement efforts in the project.

Thus, with some of the changes that this paper attempts to deliberate upon, a process could be set in motion that could support the north east in its endeavor to contribute to the economic resurgence of the home region as well as to the development of the rest of the country. It is vital that this process includes mechanisms for equitably sharing the benefits to be derived from development and focusses not only on the big-ticket items that support broad-based, long-term growth, but also on those complementary activities that have immediate impact on poverty reduction at the community level.

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List of acronyms

Terms	Explanation
NER	North eastern region
ASEAN	Association of Southeast Asian Nations
R&D	Research and development
NeDFI	North Eastern Development Finance Corporation
BRO	Border Road Organisation
PWD	Public Works Department
NHAI	National Highway Authority of India
NHDP	National Highway Development Programme
DPR	Detailed project report
IWT	Inland water transport
ICD	Inland container depot
CONCOR	Container Corporation of India Ltd
LGBI	Lokpriya gopinath bordoloi international airports
NEEPCO	North Eastern Electric Power Corporation Limited
MeSEB	Meghalaya State Electricity Board
NEIIPP	North Eastern Industrial and Investment Promotion Policy
NEC	North East Council
DoNER	Development of north eastern region
IIITAS	Indian Institute of Information Technology and Advanced Sciences
UNESCAP	United Nations Economic and Social Commission for Asia and Pacific
SEZ	Special economic zone
CIS	Capital investment subsidy
MOFPI	Ministry of Food Processing Industries

About ICC

Founded in 1925, Indian Chamber of Commerce (ICC) is the leading and only National Chamber of Commerce operating from Kolkata, and one of the most pro-active and forward-looking Chambers in the country today. Its membership spans some of the most prominent and major industrial groups in India. ICC is the founder member of FICCI, the apex body of business and industry in India. ICC's forte is its ability to anticipate the needs of the future, respond to challenges, and prepare the stakeholders in the economy to benefit from these changes and opportunities. Set up by a group of pioneering industrialists led by Mr G D Birla, the Indian Chamber of Commerce was closely associated with the Indian Freedom Movement, as the first organised voice of indigenous Indian Industry. Several of the distinguished industry leaders in India, such as Mr B M Birla, Sir Ardeshir Dalal, Sir Badridas Goenka, Mr S P Jain, Lala Karam Chand Thapar, Mr Russi Mody, Mr Ashok Jain, Mr. Sanjiv Goenka, have led the ICC as its President. Currently, Mr. Shrivardhan Goenka is leading the Chamber as its President.

ICC is the only Chamber from India to win the first prize in World Chambers Competition in Quebec, Canada.

ICC's North-East Initiative has gained a new momentum and dynamism over the last few years, and the Chamber has been hugely successful in spreading awareness about the great economic potential of the North-East at national and international levels. Trade & Investment shows on North-East in countries like Singapore, Thailand and Vietnam have created new vistas of economic co-operation between the North-East of India and South-East Asia. ICC has a special focus upon India's trade & commerce relations with South & South-East Asian nations, in sync with India's 'Look East' Policy, and has played a key role in building synergies between India and her Asian neighbours like Singapore, Indonesia, Bangladesh, and Bhutan through Trade & Business Delegation Exchanges, and large Investment Summits.

ICC also has a very strong focus upon Economic Research & Policy issues - it regularly undertakes Macro-economic Surveys/Studies, prepares State Investment Climate Reports and Sector Reports, provides necessary Policy Inputs & Budget Recommendations to Governments at State & Central levels.

The Indian Chamber of Commerce headquartered in Kolkata, over the last few years has truly emerged as a national Chamber of repute, with full-fledged offices in New Delhi, Guwahati and Bhubaneswar functioning efficiently, and building meaningful synergies among Industry and Government by addressing strategic issues of national significance.

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